

PROCEDURE AND EQUIPMENT

**Determination of Paraldehyde.**

In a 100-ml. volumetric flint, containing only 0.02-0.20 g. paraldehyde and moderate amounts of HOAc is dissolved in 10 N H<sub>2</sub>SO<sub>4</sub> (air-free), the soln. is brought to a temp. of 19-20°, and titrated with 0.3-0.5 ml. portions of 0.6 N KMnO<sub>4</sub>, while a stream of CO<sub>2</sub> is being passed over the surface of the soln. After the red-brown coloration has persisted for 3 min., 0.5 ml. excess KMnO<sub>4</sub> is added, then an excess of Molin's salt is added, and the excess salt titrated with 0.6 N KMnO<sub>4</sub>. The results are only approx. and may differ from actual values by 1-2% so that a second and more exact titration is included. If the sample contains paraldehyde, HOAc (not over 1 g.), AcH (not over 0.3 g.) vinylacetate and ethyldenediacetate, it is treated with Ag<sub>2</sub>O, 60-70 cc. of the soln. is稀釋 to 200 ml. with 10 N H<sub>2</sub>SO<sub>4</sub>, and made up to 10 N with strong H<sub>2</sub>SO<sub>4</sub>. The temp. is brought to 20° and the soln. is titrated with KMnO<sub>4</sub>. If the sample contains more than 1 g. HOAc, more than 0.3 g. AcH, and also aldot, crotonaldehyde or formic acid, the soln. is treated with Ag<sub>2</sub>O, distd. and titrated with KMnO<sub>4</sub>.

B. Z. Kamich

## ABD-1A METALLURGICAL LITERATURE CLASSIFICATION

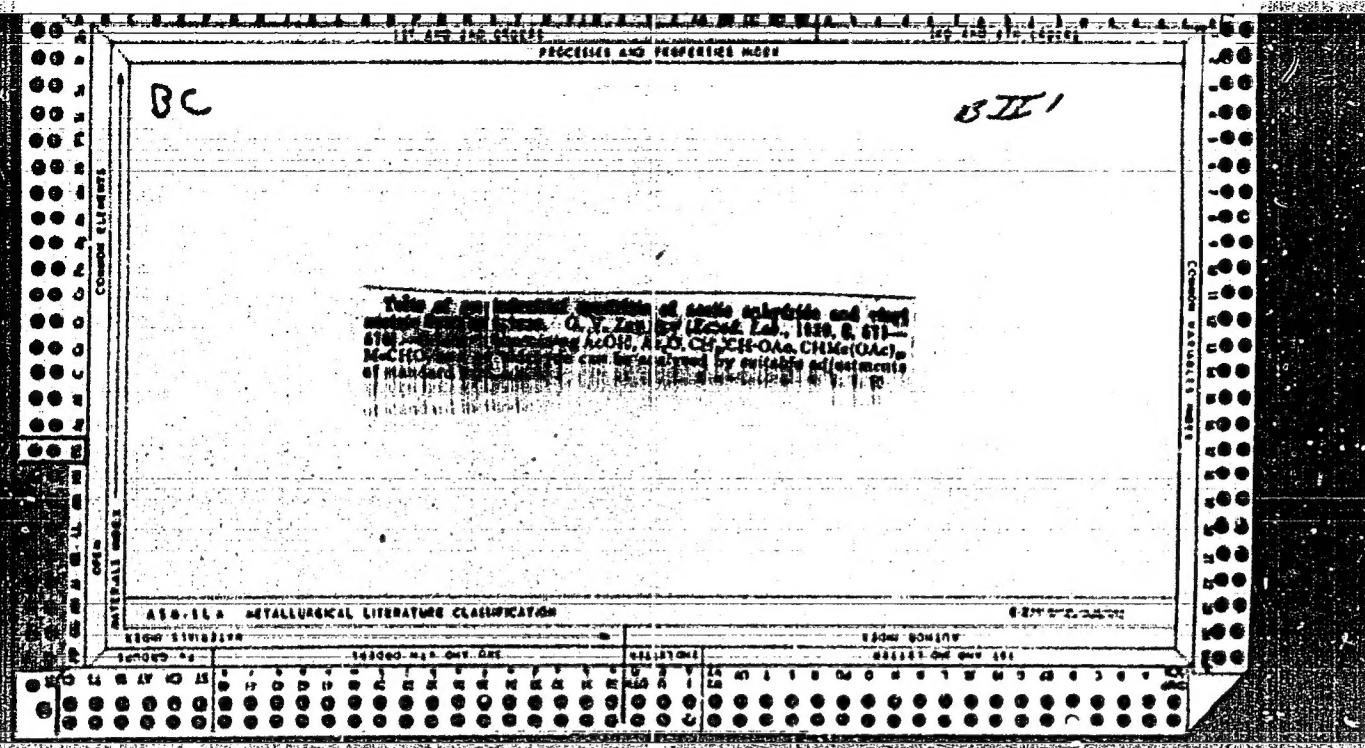
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CONTROLLING THE COMMERCIAL SYNTHESIS OF ACETIC ANHYDRIDE AND VINYL ACETATE FROM ACETYLENE.

Methods are described for the analysis of AcOH, Ac<sub>2</sub>O, ethylidene diacetate, vinyl acetate, AcH and paraaldehyde in the synthesis of Ac<sub>2</sub>O and vinyl acetate from acetylene. AcOH is detd. by titrating with 0.6 N NaOH at 23-25° with neutral red as indicator. In the case of vinyl acetate, the interference of AcH is eliminated by brominating the vinyl acetate at low temps. in the presence of a chlorine-iodine mixture. In detg. ethylidene diacetate the soln. is heated (but not boiled) in a flask equipped with a reflux condenser, while it is saponified slowly with small amts. of alkali. The soln. is then boiled to drive off the AcH, excess alkali is added and the soln. titrated. The Ac<sub>2</sub>O was detd. by the aniline method of Menshutkin and Vasilev but modified so that the aniline in a toluene soln. was added at temps. not above 0°, at which it does not react with the AcOH. AcH was detd. by the iodometric bisulfite method of Kipper and paraaldehyde by titration with permanganate in 10 N H<sub>2</sub>SO<sub>4</sub> (C. A. 33, 0190<sup>1</sup>). These methods were tested with synthetic mixts. The usual error for AcOH and ethylidene diacetate was about 0.5-0.7%. For AcH in small amts. deviations at most were 0.1%.

B. Z. K.

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6

7

The use of sodium rhodizone for determining sulfur and sulfates in technical analysis. G. V. Zarov, *Zavodskaya Lab.*, 8, No. 5 (1939); *Akhim. Referat. Zash.*, 1940, No. 3, 60.—Na<sub>2</sub>RhO<sub>4</sub> cannot be used as internal indicator, but it is suitable as an outside indicator under certain conditions. The inaccuracy of titration results is caused mainly by side reactions during the titration of SO<sub>4</sub><sup>2-</sup>, or large units of SO<sub>4</sub><sup>2-</sup>—the presence of K<sup>+</sup> and Na<sup>+</sup> ions has a considerable effect on the accuracy of the detn. To overcome this error the soln. with the ppt. was boiled, to resolve the salts pptd. simultaneously with BaSO<sub>4</sub>. High acidity of the soln. (more than 1.3 drops of 0.1 N HCl per 10 cc. of the soln.) decreases the accuracy of the detn. The optimum concn. of the indicator is 0.0-0.8% rhodizone. The indicator is added dropwise on an ashless filter paper. Z developed methods for detg. up to 2% of H<sub>2</sub>SO<sub>4</sub> impurities in tech. H<sub>2</sub>SO<sub>4</sub>, for detg. 8% pyrite after fusing it with NaCl, and for detg. S in lime.

W. H. Stover.

## **ANNUAL METALLURGICAL LITERATURE CLASSIFICATION**

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001964010004-6"

		100 AND 100 CROSSES												100 AND 100 CROSSES											
		PROCESSES AND PROPERTIES INDEX												7											
<i>cd</i>		<p><b>Determination of melamine.</b> G. V. Kostrov, Akad. Nauk SSSR, Prom. 1945, No. 2, 21. - Grind sample of the unknown as finely as possible. Weigh approx. 0.1 g. and place in a small 30-ml. container. Add hot H<sub>2</sub>O to the mark and heat on water-bath at 70° for approx. 20 min., stirring frequently. Replenish evaporated H<sub>2</sub>O, allow to cool in the air to room temp. After 2 hrs., filter with suction through a glass filter No. 3 and wash 4 times with 4 ml. portions of water. The filtrate may also contain guanidine and dicyandiamide. Transfer the filtrate to a beaker marked at 200 and 400 ml. Add boiling H<sub>2</sub>O to the 200 mark and heat rapidly to 70°. Add 6 ml. of concd. AcOEt, mix by gently swirling the beaker (do not use glass rod), and add picric acid until picrate needles appear. Allow to stand for approx. 10 min. after which, without stirring, place the beaker in cold H<sub>2</sub>O. After the beaker reaches room temp., add picric acid to the 400 mark and stir with a rod. After 1 hr., filter through a weighed glass filter No. 1 or 2, wash several times with a cold, soln. of melamine picrate, and dry to const. wt. at 100-105°. Percentage melamine = [A + (0.00065)(4)]/N × 35.5, where A is the wt. of the ppt., N is the wt. of sample, 0.00065 is the solv. of melamine picrate in 100 ml. of liquid in which it is pptd., and 35.5 is the factor for converting picrate to per cent melamine. The accuracy of this method is 0.6%. M. Hesch</p>																							
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"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001964010004-6

ZAVAROV, G. V.

"Determination of Paraaminosalicylic Acid in the Control of the Production  
of Sodium Paraaminosalicylate," Zavodskaya Laboratoriya, No 8, 1952, pp 951-954.

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CIA-RDP86-00513R001964010004-6"

Zavarov, G.V.

AUTHOR: Zavarov, G. V.

32-2-11/60

TITLE: Methods for the Determination of the Additions of Sulfates  
in Soluble Phosphates (Metody opredeleniya primesi  
sul'fatov v rastvorimykh fosfatakh)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 2, pp. 153-156 (USSR)

ABSTRACT: The methods of the determination of sulfates according to  
GOST (451-41, 201-41, OST 10178-39, 4172-48) are not exact  
and lead to errors as the results are very high with low  
acidity (0,05-0,1 n), while they are far to low with  
increased acidity (about 0,5n). It can also happen that in  
the investigations of technical phosphorus small amounts  
of bariumsulfate besides greater amounts of phosphates are  
not at all precipitated within a given time. There are two  
ways of determination, either the phosphate ion is removed,  
or the sulfate ion is precipitated as barium sulfate without  
preliminary separation. If the solution is very acidous in  
the second case the increased solubility of bariumsulfate  
must be compensated with a longer period of rest, i.e. it  
must be filtered the next day. This way also to 0,1% of SO<sub>3</sub>

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Methods for the Determination of the Additions of Sulfates      32-2-11/60  
in Soluble Phosphates

can be well determined as is seen from a table. In the first case the phosphate ion was precipitated as  $MgNH_4PO_4 \cdot 6H_2O$  and the author found that precipitation should be carried out at boiling temperature with heavy stirring; a dissolution and precipitation increases the accuracy.

Three variants of analysis are mentioned, two of them for more precise determinations. In the latter mentioned the  $MgNH_4PO_4$  deposit is dissolved and precipitated, boiled resp. and intensively stirred. The analysis can be essentially quickened by a combination with the titration method of sulfates according to Fritz and Frieland. A rather good coincidence is to be seen from a table of comparison of the results obtained according to Gravimetric and volumetric methods. There are 4 tables,

ASSOCIATION: Chernorechensk Chemical Plant, imeni M. I. Kalnin  
(Chernorechenskiy khimicheskiy zavod im. M. I. Kalinina)  
AVAILABLE: Library of Congress  
Card 2/2      1. Barium sulfate-Determination    2. Sulfates-Determination  
                  3. Titration

AUTHOR:

Zavarov, G.V.

32-24-6-7/44

TITLE:

A New Variant for Determining Active Chlorine in Chloride of Lime  
by the Method of Electrometric Titration (Novyy variant  
opredeleniya aktivnogo khlora v khlorney izvesti metodom  
elektrometricheskogo titrovaniya)

PERIODICAL:

Zavodskaya Laboratoriya, 1958, Vol 24, Nr 6, pp 681-682 (USSR)

ABSTRACT:

In contrast to the method developed by Peno (Ref. 1), which is usually employed, an electrometric titration method is described in this paper, in which a bimetallic system of polarized electrodes is used and the end of the reaction is observed at the moment of polarization by an excess amount of arsenite added to the solution. A particular feature of this variant is the application of a trivalent arsenic solution for titration, and further also the platinum wire anode and the tungsten wire cathode; plated platinum was found to give better results than smooth platinum. The analysis is described and a graph is given. At larger quantities of free lime disturb titration, the 1.0 n arsenite solution must contain 20 g/l sodium bicarbonate and must not show an alkaline reaction. In order to render the method

Card 1/2

A New Variant for Determining Active Chlorine in  
Chloride of Lime by the Method of Electrolytic  
Titration

32-24-6-7/44

described as efficacious as possible, a suitable device must be constructed the schematical drawing of which is given; its essential feature is a cellophane diaphragm which warrants the dropwise addition of the solution, which is of special importance at the end of titration. In order to prevent corrosion of this device, it must either be suitably protected or it must be made from non-corrosive material. There are 2 figures, 1 table, and 3 Soviet references.

ASSOCIATION: Chernorechenskiy khimicheskiy zavod (Chernorech'ye Chemical Works)

1. Chlorine--Determination
2. Chlorinated lime--Analysis
3. Electrolytic titration--Performance
4. Electrolytic titration--Equipment

Card 2/2

ZAVAROV, G.V.

Trilon B as an inhibitor of the oxidation of sulfite solutions by atmospheric oxygen. Zav.lab. 26 no.12:1352-1353 '60.

(MIRA 13:12)

1. Chernorechenskiy khimicheskiy zavod imeni M.I.Kalinina.  
(Sulfites) (Oxidation) (Acetic acid)

ZAVAROV, G.V.

Determination of sulfonyl chloride in the presence of  
chlorosulfenic acid. Zav.lab. 27 no.6;670-672 '61. (MIRA 14:6)

1. Chernorechenskiy khimicheskiy zaved imeni M.I.Kalinina.  
(Sulfonyl chloride) (Chlorosulfenic acid)

ZAVAROV, G.V.

Determination of free chlorine and sulfurous anhydride in  
mixtures of sulfur chlorides and oxychlorides. Zav. lab.  
30 no.1:25-27 '64. (MIR 17:9)

1. Chernorechenskiy khimicheskiy zavod.

ZAVAROV, G.V.

Determination of sulfuryl chloride in mixtures of sulfur chlorides and oxychlorides. Zav. lab. 31 no.11:1316-1317 '65.  
(MIRA 19:1)

ZAVAROV, O., arkitektor

Assembly line produces,,,houses. Znan.ta pratsia no.1:4-5  
J1 '59. (MIRA 12:10)

1. Institut "Kievproekt."  
(Buildings, Prefabricated)

GORLANOV, M.G., prepodavat.; POKAZAN'IEV, Aleksandr; ADAMOV, V.V., kand. ist. nauk, retsenzent; KULAGINA, G.A., kand. ist. nauk, retsenzent; BORODIN, Ye.A., red.; ZAVAROV, S.I., red.; POPOV, N.Ye., red.; NOGOZHIN, V.N., red.; SILENSKIKH, T.N., red.; TARIKO, A.N., red.; KOLOSNITSYN, V., redaktor; MAKSIMOVA, E., tekhn. red.

[Revda stories; from the history of the Revda Hardware Manufacturing and Metallurgical Plant] Revdinskie vli; iz istorii Revdinskogo metiznometallurgicheskogo zavoda. Sverdlovsk, Sverdlovskoe knizhnoe izd.-vo, 1960. 154 p. (MIRA 15:8)

1. Sekretar' Revdinskogo geroedskogo komiteta Kommunisticheskoy partii Sovetskogo Soyuza (for Silenskikh).  
(Revda--Metallurgical plants)

ORLOV, S.I.; KOLMOGOROV, V.L.; ANTIPIN, S.V.; ZAVAROV, S.I.; SOLOV'YEV, B.P.;  
VOROB'YEV, G.M.; KIRCHUNOV, A.I.

Introduction of sectional drawplates for the manufacture of low-carbon wire-steel. Metallurg, 10 no. 10:28-29 O '65.  
(MIRA 18:10)

1. Ural'skiy nauchno-issledovatel'skiy institut chernykh metallov  
i Revdinskiy metizno-metallurgicheskiy zavod.

L 01045-67 EWT(m)/EWP(j)/T IJP(c) WW/RM

ACC NR: AP6019541

(A)

SOURCE CODE: UR/0190/66/008/006/1028/1034

AUTHOR: Minsker, K. S.; Zavarova, T. B.; Bubis, L. D.; Fedoseyeva, G. T.; Burlakova, G. I.; Pakhomova, I. K.

58  
B

ORG: All-Union Scientific-Research Institute of Chloroorganic Products and Acrylates  
(Vsesoyuznyy nauchno-issledovatel'skiy institut khlororganicheskikh produktov i akrylatov)

TITLE: Assessment of the thermal stability of polyvinyl chloride and the efficiency of thermostabilizers

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 8, no. 6, 1966, 1028-1034

TOPIC TAGS: polyvinyl chloride, solid mechanical property, chemical stabilizer, Thermal Stability

ABSTRACT: A critical evaluation of the methods of assessment of the thermal- and thermal-oxidative stability of PVC is given and the efficiency of the thermostabilizing additives to PVC are discussed. The thermal stability of polyvinyl chlorides containing such stabilizers as  $3\text{PbO}\cdot\text{PbSO}_4$ , dibutyl lead maleinate, dibutyl lead laurate, calcium stearate, diphenylolpropane, bis-(2-methyl-4-oxy-5-tertiary-butylphenyl)-sulfide, bis-3-(methyl-4-oxy-5-tertiary-butylphenyl)methane, dibutyl-4,5-epoxyhexahydrophthalate, lead stearinate, and 2-oxy-4-methoxy benzophenone was examined by means of measuring HCl liberation during the heating of various stabilized PVC samples at 170°C

UDC: 678.01:54+678.743

Card 1/2

L 01045-67

ACC NR: AP6019541

for 0-300 minutes. It was found that for the evaluation of the thermal stability of the stabilized PVC, the commonly used indices such as "integral rate of HCl liberation for 180 min heating at standard conditions" and "thermostability" are inapplicable. The following indices are recommended as a basis for evaluating the thermal- and thermal-oxidative stability of the PVC stabilizers: (1) the time from the beginning of the decomposition reaction to the point at which the reaction rate becomes constant; (2) the rate constant of the dehydrochlorination reaction; and (3) the temperature dependence of the time of initiation of the PVC thermal decomposition at 170°C. Orig. art. has: 4 figures, 1 table.

SUB CODE: 07/ SUBM DATE: 31May65/ ORIG REF: 012/ OTH REF: 007

awm

Card 2/2

L 08135-67 EWT(m)/EWP(j)/ IJP(c) W/W/RM  
ACC NR: AP6030857 (A,N)

SOURCE CODE: UR/0191/66/000/009/0056/0059

AUTHOR: Minsker, K. S.; Zavarova, T. B.; Bubis, L. D.; Fedosoyeva, G. T.; Burlakova, G. I.; Pakhomova, I. K.

ORG: none

H2

TITLE: Evaluation of the thermal stability of polyvinyl chloride

B

SOURCE: Plasticheskiye massy, no. 9, 1966, 56-59

TOPIC TAGS: polyvinyl chloride, polymer stability, antioxidant additive, chemical stabilizer

ABSTRACT: A study of the thermal stability of polyvinyl chloride (PVC) containing various antioxidant stabilizers (HCl acceptors) showed that the rate of decomposition of PVC and the time  $\theta$  required for a first-order dehydrochlorination reaction to be established can be used for characterizing PVC, and that  $\theta$  can serve as a criterion for the effectiveness of stabilizer action. A correct and unambiguous estimate of the stabilizer additives introduced into PVC requires that the initial polymer be characterized by a value of  $\theta$  close to zero. It was noted that an increase in the content of antioxidant stabilizers caused a change in the rate constant of the dehydrochlorination reaction. The effectiveness of the stabilizer action can in this case be determined from the change in the rate constant of HCl evolution. Another criterion of stabilizer action is  $\tau$ , the duration of the induction period up to the start of

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ACC NR: AP6030857

liberation of HCl, also called thermal stability;  $\tau$  is described by the Arrhenius equation  $1/\tau = A \exp(E/RT)$ . It was found that A and E characterize the chemical nature of PVC. The use of this equation for estimating PVC compositions should aid in obtaining a definite picture of the action of stabilizers introduced into PVC. Another equation which also applies to the PVC - stabilizer systems studied expresses the dependence of the thermal stability on the concentration of stabilizers introduced,  $\tau = B \cdot C^{1/n}$ , where C is the concentration of the stabilizer and B and n are constants for a given series of experiments. Orig. art. has: 6 figures and 2 tables.

SUB CODE: 11/ SUEM DATE: none/ ORIG REF: 011/ OTH REF: 006

Card 2/2

1s

ZAVAROVA, T.P.

Prevention of stular skin diseases in shoe industry workers. Vrach.  
delo no.2:199 F '57. (MLRA 10:6)

1. Kafedra dermato-venerologii (zav. - prof. M.M.Kuznets) Kiyevskogo  
instituta usovershenstvovaniya vrachey.  
(SHOE INDUSTRY--HYGIENIC ASPECTS)  
(SKIN--CARE AND HYGIENE)

ZAVAROVA\*SHELUD'KO, T. F.

36979. Terapevicheskaya effektivnost' sovetskogo preparata "Sovarsen" pri uplotnennom metode ego primeneniya. Uchen. zapiski (L'vovsk. nauch.-issled Kozhno-venerol. In-t), t. II, 1949, c. 8-11

SO: Letopis' Zhurnal'nykh Statey, Vol 50, Moskva, 1949

ZAVAROVA, T.R., assistent

Use of tissue therapy in chronic complications of gonorrhea in  
women. Ped., akush. i gin. 20 no.1:43-46 '58. (MIRA 13:1)

1. Kafedra dermato-venerologii (zav. - A.P. Lavrov) Kiyevskogo insti-  
tuta usovremenstvovaniya vrachey (direktor - prof. I.I. Kal'chenko).  
(GONORRHEA) (TISSUE EXTRACTS)

ZAVARSKAYA, I.P.; SORKINA, E.Z., doktor med. nauk

Result of a population examination for tuberculosis. Probl.  
tub. no.8:12-16 '62. (MIRA 16:9)

1. Iz Tsentral'nogo instituta tuberkuloza (dir. - deyatel'nyy cheln AMN SSSR prof. N.A. Shmelev) Ministerstva zdravookhraneniya SSSR, Moskva.  
(TUBERCULOSIS)

MASSINO, S. V., prof; ZAVARSKAYA, I. P.; KORNBLYUM, O. I., kand. med. nauk; MITINSKAYA, L. A., kand. med. nauk; SOKOL'SKAYA, N. S., kand. med. nauk

Method for and evaluation of tuberculin tests in determining the infection of the population with tuberculosis. Probl. tub. 40 no.4:3-11 '62. (MIRA 15:6)

1. Iz otdela epidemiologii i organizatsii bor'by s tuberkulezom (zav. - prof. S. V. Massino) Tsentral'nogo instituta tuberkuleza Ministerstva zdravookhraneniya SSSR (dir. - deyatel'nyy chlen AMN prof. N. A. Shmelev)

(TUBERCULIN—TESTING) (TUBERCULOSIS)

FANDEYEV, Boris Vasil'yevich; ZAVARSKIY, A.I., red.

[Cattle] Krupnyi rogatyi skot. Izd.3., perer. i dop.  
Moskva, Sel'khozizdat, 1963. 294 p. (MIRA 17:2)

GERCHIKOV, N.P., prof.; SAVITSKIY, A.I., red.

[animal husbandry] Shchitovodstvo. Iza.2., perer. i dop.  
Moskva, Kolos, 1964. 318 p. (MIRA 1710)

VESELOV, Ye.A., prof.; VSYAKIKH, A.S., prof.; DENISOV, N.I., prof.; GERCHIKOV, N.P., prof.; LASTOCHKIN, S.N., prof.; ALIKAYEV, V.A., dots.; BESSARABOV, V.A., dots.; KALININ, V.I., dots.; SOKOLOV, A.K., dots.; ZAVARSKIY, A.I., red.; DEYEVA, V.M., tekhn. red.

[Animal husbandry and veterinary hygiene] Zhivotnovodstvo i zoogigiena. [By] E.A.Veselov i dr. Izd.2., perer. i dop. Moskva, Sel'khozizdat, 1963. 451 p. (MIRA 17:2)

SHCHERBINA, Pavel Semenovich; Prinimal uchastiye YAKUSHA, I.V., inzh..  
ZAVARSKIY, A.I., red.; MAKHOVA, N.N., tekhn.red.; GOR'KOVA, Z.D.,  
tekhn.red.

[Bee culture] Pchelovodstvo. Issd.4., perer. i dop. Moskva, Gos.  
issd-vo sel'khoz.lit-ry, 1959. 663 p. (MIRA 13:6)  
(Bee culture)

KHARLAMOV, M.K.; MAKSIMOV, A.A., otvetstvennyy redaktor; ZAVARSKIY, A.I.,  
redaktor; BALLOD, A.I., tekhnicheskiy redaktor

[ "Lithuanian S.S.R." pavilion; a guidebook] Pavil'on "Litovskaya  
SSR"; putesvoditel'. Moskva, Gos.izd-vo selkhoz. lit-ry, 1956. 23 p.  
(MIRA 9:8)

1. Moscow. Vsesoyuznaya sel'skokhozyaystvennaya vystavka, 1954-
2. Glavnyy metodist pavil'ona "Litovskaya SSR" (for Kharlamov)  
(Lithuania--Agriculture) (Moscow--Agricultural exhibitions)

MARTYUGIN, Dmitriy Dmitriyevich, dots., kand. sel'khoz. nauk;  
ZAVARSKIY, A.I., red.

[Practical manual in animal husbandry; handbook for  
practical studies] Praktikum po skotovodstvu; posobie k  
prakticheskim zaniatiiam. Izd.2., perer. i dop. Mo-  
skva, Kolos, 1964. 174 p. (MIRA 17:11)

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CIA-RDP86-00513R001964010004-6

OSMOLOVSKIY, M.S.; GRIGOR'YEVA, A.Ya.; KUTSEVSKIY, N.S.; ZAVARSKIY, A.I.,  
red.; RUDNIK, A.V., red.; GOR'KOVA, Z.D., tekhn.red.

[Loose housing of cattle] Bespriviaznoe soderzhanie skota. Moskva,  
Gos.izd-vo sel'khoz.lit-ry, 1960. 94 p. (MIRA 13:12)  
(Dairy barns)

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CIA-RDP86-00513R001964010004-6"

GOREGLYAD, Kh.S.; KORYAZHNIKOV, V.P.; SHLIPAKOV, Ya.P.; YEMEL'YANOVA, N.I.,  
red.; ZAVARSKII, A.I., red.; BEZHLEBNOV, Yu.A., red.; USTIMENKO,  
L.F., red.; GOR'KOVA, Z.D., tekhn.red.

[Technology and veterinary inspection of animal products] Veteri-  
narno-sanitarnais ekspertiza s osnovami tekhnologii produktov  
zhivotnovodstva. Moskva, Gos.izd-vo sol'khos.lit-ry, 1960. 355 p.  
(MIRA 13:12)

(Animal products) (Meat inspection)

NUZHDIN, Aleksandr Sergeyevich; ROZOV, Sergey Alekseyevich; ZAVARSKIY, A.I.,  
red.; PROKOF'YEVA, L.N., tekhn. red.

[Principles of beekeeping] Osnovy pchelovodstva. Moskva, Gos. izd-  
vo sel'khoz. lit-ry, zhurnalov i plakatov, 1961. 215 p.  
(MIRA 14:10)  
(Bee culture)

VAGIN, Ye.A., kand. sel'khoz. nauk'; KVAPIL', A.I., kand. sel'khoz. nauk [deceased]; KLETSKIN, P.T., kand. sel'khoz. nauk; UTKIN, L.G., kand. biol. nauk. Prinimal uchastiye KLADOVSHCHIKOV, V.F., kand. sel'khoz. nauk; ZAVARSKIY, A.I., red.

[Fur farming and rabbit husbandry] Pushnoe zverovodstvo i krolikovodstvo. Moskva, Kolos, 1965. 286 p.  
(MIRA 18:7)

1. Nauchno-issledovatel'skiy institut pushnogo zverovodstva i krolikovodstva (for all except Zavarskiy).

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001964010004-6

AVETISYAN, G.A., prof.; ZAVARSKIY, A.I., red.

[Bee culture] Pchelovodstvo. Moskva, Kolos, 1965. 287 p.  
(MIRA 18:7)

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001964010004-6"

OUR'YEV, V.I.; glavnnyy metodist pavil'ona; NAPOL'SKIY, otvetatvennyy  
redaktor; ZAVARSKIY, A.I., redaktor; VESKOVA, Ye.I., tekhnicheskly  
redaktor

[The "White Russia" pavilion; a guidebook] Pavil'on "Belorussskaya  
SSR"; putesvoditel', Moskva, Gos. izd-vo selkhoz. lit-ry, 1956.  
25 p. (MIRA 9:9)

1. Moscow. Vsesoyuznaya sel'skokhozyaystvennaya vystavka, 1954-  
(White Russia--Agriculture)  
(Moscow--Agricultural exhibitions)

ZAHAROV, I.A.

BENEDIKTOV, I.A., redaktor; GRITSENKO, A.V., redaktor; IL'IN, M.A., zamestaniy redaktor; LAPTEV, I.D., LISKUN, Ye.F.; LOBANOV, P.P., glavnyy redaktor; LYSENKO, T.D.; SKRYABIN, K.I.; STOLETOV, V.N.; PAVLOV, G.I., kandidat sel'skokhozyaystvennykh nauk, nauchnyy redaktor; SOKOLOV, M.S., professor, nauchnyy redaktor; ANTIPOV-KARATAYEV, I.N., doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; KARPINSKIY, N.P., kandidat sel'skokhozyaystvennykh nauk, nauchnyy redaktor; SHKSTAKOV, A.G., doktor sel'skokhozyaystvennykh nauk, professor, nauchnyy redaktor; RUBIN, B.A., doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; KOMARNITSKIY, N.A., dotsent, nauchnyy redaktor; LYSENKO, T.D., akademik, nauchnyy redaktor; POLYAKOV, I.M., professor, nauchnyy redaktor; SHCHEGOLEV, V.N., doktor sel'skokhozyaystvennykh nauk, professor, nauchnyy redaktor; YAKUSHKIN, I.V., akademik, nauchnyy redaktor; LARIN, I.V., professor, doktor biologicheskikh nauk, nauchnyy redaktor; SMELOV, S.P., professor, doktor biologicheskiy nauk, nauchnyy redaktor; ZEDEL'SHTZYN, V.I., professor, doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; SHCHERBACHEV, D.H., professor, doktor mediteinskikh nauk, nauchnyy redaktor; OGOL'EVTSH, G.S., kandidat sel'skokhozyaystvennykh nauk, nauchnyy redaktor; YAKOVLEV, P.N., akademik, nauchnyy redaktor; YSKIMOV, V.P., agronom, nauchnyy redaktor [deceased], ETTINGEN, G.P., professor, doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; TIMOFEEV, N.N., professor, nauchnyy redaktor; TUROV, S.I., professor, doktor biologicheskikh nauk; YUDIN, V.M., akademik, nauchnyy redaktor; LISKUN, Ye.F., akademik, nauchnyy redaktor; VITT, V.O., professor, doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; KALININ, V.I., kandidat sel'skokhozyaystvennykh nauk, nauchnyy redaktor;

(Continued on next card)

BENEDIKTOV, I.A.--- (continued) Card 2.

GREBEN', L.K., akademik, nauchnyy redaktor; NIKOLAYEV, A.I., professor, doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; RED'KIH, A.P., professor, doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; SMETNEV, S.I., professor, doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; POPOV, I.S., professor, doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; MANTSEYFEL', P.A., professor nauchnyy redaktor; INIKHOV, G.S., professor, doktor khimicheskikh nauk, nauchnyy redaktor; ANEFIMOV, A.N., professor, nauchnyy redaktor; GUBIN, A.F., professor, doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; POITKEV, V.I., professor, doktor veterinarnykh nauk, nauchnyy redaktor; LINDE, V.V., professor, doktor tekhnicheskikh nauk, nauchnyy redaktor; CHERGAS, B.I., professor, doktor biologicheskikh nauk, nauchnyy redaktor; NIKOL'SKIY, G.V., professor, nauchnyy redaktor; AVTOKRATOV, D.M., professor, doktor veterinarnykh nauk, nauchnyy redaktor; IVANOV, S.V., professor, doktor biologicheskikh nauk, nauchnyy redaktor; VIKTOROV, K.P., professor, doktor veterinarnykh nauk, nauchnyy redaktor; KOLYAKOV, Ya.Ye., professor, doktor veterinarnykh nauk, nauchnyy redaktor; ANTIPIN, D.N., professor, doktor veterinarnykh nauk, nauchnyy redaktor; MARKOV, A.A., professor, doktor veterinarnykh nauk, nauchnyy redaktor; DOMRACHEV, G.V., professor, doktor veterinarnykh nauk, nauchnyy redaktor; OLIVKOV, B.M., professor, doktor veterinarnykh nauk nauchnyy redaktor [deceased]; FLEGMATOV, N.A., professor, doktor veterinarnykh nauk, nauchnyy redaktor; BOLTINSKIY, V.N., professor, doktor tekhnicheskikh nauk, nauchnyy redaktor; VIL'YAMS, Vl.P., professor, doktor tekhnicheskikh nauk, nauchnyy redaktor; KRASNOV, V.S., kandidat tekhnicheskikh nauk, nauchnyy redaktor;

(Continued on next card)

BENEDIKTOV, I.A.---(continued) Card 3.

YEVREINOV, M.G., akademik, nauchnyy redaktor; SAZONOV, N.A., doktor tekhnicheskikh nauk, nauchnyy redaktor; NIKANDROV, B.I., inzhener, nauchnyy redaktor; KOSTYAKOV, A.N., akademik, nauchnyy redaktor; CHERKASOV, A.A., professor, doktor tekhnicheskikh nauk, nauchnyy redaktor; DAVITAYA, F.F., doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; IVANOV, N.N., professor, doktor tekhnicheskikh nauk, nauchnyy redaktor; ORLOV, P.M., professor, doktor tekhnicheskikh nauk, nauchnyy redaktor; LOZA, G.M., kandidat ekonomicheskikh nauk, nauchnyy redaktor; CHERNOV, A.V., kontrol'nyy redaktor; ZAVARSKIY, A.I., redaktor; ROS-SOSHANSKAYA, V.A., redaktor; FILATOVA, N.I., redaktor; YIMEL'YANOVA, N.I., redaktor; SILIN, V.S., redaktor BRANZBURG, A.Yu., redaktor; MAGNITSKIY, A.V., redaktor terminov; KUDRYAVTSEVA, A.G., redaktor terminov; AKSENOVA, A.P., mladshiy redaktor; MALYAVSKAYA, O.A., mladshiy redaktor; YEDOTOVA, A.F., tekhnicheskiy redaktor

(Continued on next card)

BENEDIKTOV, I.A.---(continued) Card 4.

[Agricultural encyclopedia] Sel'skokhoziaistvennaia entsiklopediia.  
Izd.3-e, perer. Moskva, Gos. izd-vo selkhoz. lit-ry. Vol.5. [T-IA.]  
1956. 663 p. (MIRA 9:9)  
(Agriculture--Dictionaries and encyclopedias)

VOROB'YEV, P.A.; SHTYKOVA, Ye.I.; KOVNEREV, I.P.; VASIL'YEV,  
N.A., retsenzent; ZAVARSKIY, A.I., red.

[Breeding Romanov sheep] Razvedenie romanovskikh ovets.  
Moskva, Kolos, 1965. 191 p. (MIRA 18:12)

1. Glavnoye upravleniye zhivotnovodstva Ministerstva  
sel'skogo khozyaystva SSSR (for Vasil'yev).

ZAVARSKIY, Emmanuil Viktorovich, prepodavatel'; BABIN, Yevgeniy Nikolayevich, prepodavatel'; KISELEVA, N.P., red.

[Elimination of faults in TE3 diesel locomotives] Ustranenie neispravnostoi teplovoza TE3. Izd.2., ispr. 1 dop. Moskva, Transport, 1964. 123 p. (MIRA 18;1)

1. Orenburgskiy tekhnikum zhelezodorozhnoho transporta (for Zavariskiy, Babin).

ARKHAROV, Aleksey Mikhaylovich; MIRONOV, Georgiy Georgiyevich; ZAVARTSEV,  
A.M., inzh., retsenzent; BERZIN, B.O., kand.tekhn.nauk, red.;  
TAIROVA, A.L., red, izd-va; EL'KIND, V.D., tekhn.red.

[Automatic recording of the performance of machines] Avtomaticheskii  
uchet raboty mashin. Moskva, Gos. nauchno-tekhn. izd-vo mashino-  
stroit. lit-ry, 1957. 113 p. (MIRA 11:3)  
(Machine-shop practice) (Recording instruments)

ZAVARTSEV, A.M.

AUTHOR: Zavartsev, A.M. 113-58-3-15/16

TITLE: Autotractor Devices (Avtotraktornyye pribory)

PERIODICAL: Avtomobil'naya Promyshlennost', 1958, Nr 3, p 45 (USSR)

ABSTRACT: The article contains a review of the book by V.A. Popov:  
"Autotractor Devices" (Avtotraktornyye pribory), published  
by Mashgiz, 1956.

ASSOCIATION: NIIAvtopriborov

AVAILABLE: Library of Congress

Card 1/1 1. Cargo vehicles-U.S.S.R.

ACC NR: AP7001703

SOURCE CODE: UR/0032/66/032/012/1523/1525

AUTHOR: Kogan, M. G.; Andreychenko, I. T.; Bogin, V. S.; Zavartsev, N. A.;  
Karker, Ya. I.

ORG: none

TITLE: Laboratory high-temperature furnace for heating and melting of metals

SOURCE: Zavodskaya laboratoriya, v. 32, no. 12, 1966, 1523-1525

TOPIC TAGS: metalluric research, metallurgic furnace, high temperature furnace,  
electron beam furnace

ABSTRACT: A laboratory vacuum furnace for heating, melting, zone refining, and  
evaporating (for vacuum-vapor deposition) primarily refractory metals has been  
designed and built at an unidentified institution. The furnace operates with several  
heating systems (resistance, radiation, arc, and electron beam) used individually or  
in combination. The vacuum chamber can be evacuated to a pressure of  $10^{-6}$  mm Hg.  
The furnace produces ingots 50 mm in diameter and up to 400 mm long. The charge  
can be placed in advance or fed during the melting. Zone refining can be done  
with a metal bar in the horizontal or vertical position. In vacuum-vapor deposi-  
tion, the evaporation is done with an electron beam, and the temperature of the  
substrate is controlled with radiant heat. The furnace has two 45-kw electron guns  
operating with an accelerating voltage of 30 kv. Orig. art. has: 1. figure.

SUB CODE: 13/ SUBM DATE: none/ ATD PRESS: 5111  
Card 1/1 UDC: 621.365:621.52:546.3

L 29425-66 ENT(m)/ETC(t), ETI IJF(c) Ju/JG

ACC NR: AP6017978 (H) SOURCE CODE: UR/0413/66/000/010/0080/0080

INVENTOR: Kogan, M. G.; Andreychenko, I. T.; Karker, Ya. I.; Bogin, V. S.;  
Zavartsev, N. A.

ORG: none

TITLE: A method of vacuum melting highly reactive refractory metals. Class 40,  
No. 181813

SOURCE: Izobreteniya, promyshlennye obraztsy, tovarnyye znaki, no. 10, 1966, 80

TOPIC TAGS: metal, reactive metal, refractory metal, metal melting, vacuum melting,  
induction melting

ABSTRACT: This Author Certificate introduces a method of vacuum scull melting of  
highly reactive refractory metals. To obtain uniformly superheated metal within  
the scull, the initial metal or alloy is melted in an electromagnetic field with  
the heat produced by axial or eddy currents. (MS)

SUB CODE: 11/ SUBM DATE: 06Jun63/ ATD PRESS: 5010  
13/

Card 1/1 fv UDC: 621.745.5

ZAVARTSEVA, M.N., assistent

Physical development of children in the creches of Voronezh.  
Vop. ekh. mat. i det. 7 no.1:75-77 Ja '62. (MIRA 15:3)

1. Iz kafedry propedevtiki detskikh bolezney (zav. - kand.  
med.nauk L.N. Titova) Voronezhskogo meditsinskogo instituta.  
(INFANTS--GROWTH)  
(VORONEZH--DAY NURSERIES)

ACCESSION NR: AR4039222

S/0285/64/000/004/0018/0019

SOURCE: Ref. zh. Turbostroyeniye. Otd. vy\*p., Abs. 4.49.97

AUTHOR: Zavartseva, N. A.

TITLE: Strength calculations of radial turbomachine webs

CITED SOURCE: Tr. Tsentr. n.-i. avtomob. i avtomotorn. in-ta, vy\*p. 55, 1963, 34-79

TOPIC TAGS: turbomachinery, turbine, turbine rotor, turbine web, turbine rotor strength, turbine blading strength, turbine blading, turbine bucket

TRANSLATION: A method for calculating webs with center holes which are integral from centrifugal forces and temperature field along the radius under variable elasticity parameters is given. Webs which do not have a perpendicular plane of symmetry axis are examined. The web is considered as a slightly bent plate with radially arranged fin blades. The blades are considered as rods and the inertia load from the blading is taken as axially symmetrical. The temperature distribution along the periphery is assumed to be uniform. The hypotheses of the theory of plates and shells are used. An axially symmetrical problem with independent

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ACCESSION NR: AR4039222

variable radius is derived on the basis of these assumptions. The computational sequence is based on an equation of equilibrium, conditions of compatibility and relation of stress to strain. The tensile stresses and flexures are determined in radial and cylindrical cross sections with consideration to the joint working of the web with the blading. A system of four differential equations is set up for determining the intensity of the forces and bending moments in the radial and cylindrical cross sections. For a numerical solution, this system is converted into a system of four integral equations which can be solved by the successive approximation method. The effect of the blade rigidity and changes brought about by flexure in the general stressed state of the web are shown by numerical examples.

DATE ACQ: 07May64

SUB CODE: AS, PR.

ENCL: 00

Card 2/2

ACCESSION NR: AT4010245

S/3052/63/000/003/0169/0180

AUTHOR: Zavartseva, P. A. (Moscow)

TITLE: Thermal stresses in disks of radial gas turbines

SOURCE: AN UkrSSR. Institut mekhaniki. Teplovye napryazheniya v elementakh konstruktsiy; nauchnoye soveshchaniye. Doklady\*, no. 3, 1963, 169-180

TOPIC TAGS: turbine, gas turbine, thermal stress, metal fatigue, turbine blade thermal stress

ABSTRACT: High peripheral velocity and unequal heating lead to high stresses in disks and blades of radial gas turbines. Therefore, attention should be paid during design to thermal stresses, which are redistributed due to creep of the disk during operation. In the investigation, the author considers that the temperature, and consequently the plastic features of the material, change only along the depth and radius of the disk. Formulas are evolved from the basic hypotheses for plates and shells. Stress, moment and deflection equations are evolved for different kinds of disks and blades. Analysis shows that for existing types of uniformly heated disks, the maximum bending stress is about 70-90% of the maximum tensile

Card 1/2

ACCESSION NR: AT4010245

stress. However, the stress drops sharply further away from the center, showing that the bending is only local. Orig. art. has: 3 figures and 26 formulas.

ASSOCIATION: Institut mekhaniki AN UkrSSR (Mechanics Institute AN SSSR)

SUBMITTED: 00 DATE ACQ: 17Jan84 ENCL: 00

SUB CODE: AP, PR NO REF Sov: 004 OTHER: 000

Card 2/2

ZAVAR-TSEVA, V.M.

P.3

25(2,5)

PHASE I BOOK EXPLOITATION

SOV/2885

Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii i  
mashinostroyeniya

Povysheniye prochnosti elementov konstruktsiy i detaley mashin  
(Increasing the Strength of Constructional and Machine Elements)  
Moscow, Mashgiz, 1959. 210 p. (Series: Its: *Sbornik* kn. 91)  
5,500 copies printed.

Ed. (Title page): I. V. Kudryavtsev, Doctor of Technical Sciences,  
Professor; Ed. (Inside book): A. G. Nikitin, Engineer; Tech.  
Ed.: V. D. El'kind; Managing Ed. for Literature on Transport  
Machine Building (Mashgiz): K. A. Ponomarev, Engineer.

PURPOSE: This collection of articles is intended for designers,  
process engineers, and scientific research workers in the  
machine-building industry.

COVERAGE: The collection contains papers dealing with experimental  
work done recently by TsNIITMASH. The experiments are concerned  
with the practical use of surface work hardening in industry.  
Industrial practices intended to increase the strength and

Card 1/10

Increasing the Strength (Cont.)

SOV/2885

service life of machine parts and constructional elements are discussed. Several articles are devoted to problems of increasing the fatigue strength of machine parts by work hardening. Industrial practices of NKMZ in Kramatorsk in external burning of large machine parts are presented. Tools and fixtures used in surface work hardening are described. No personalities are mentioned. References follow each article.

TABLE OF CONTENTS:

Preface

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I. STRESS DISTRIBUTION

Kudryavtsev, I. V. On the Effect of Residual Stresses on the Fatigue Strength of Steel

5

This article is a report on an international conference on fatigue strength held in London in September 1956. The effects of residual stresses on fatigue stress with and without stress concentrations, the effect of residual stresses after welding, and the effect of residual stresses.

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Increasing the Strength (Cont.)

SOV/2885

after long-time storage are discussed. The significance of residual stresses in increasing the fatigue strength of shafts by surface work hardening is pointed out.

Zavartseva, V. M. [Candidate of Technical Sciences]. Application of the Photoelastic Method of Stress Analysis in the Contact Zone of a Bent Beam With Bearing Clamps 23

Fringe photographs are shown of stress-concentration factors and lines of principal stresses in a cantilever shaft of rectangular cross-section with fitted bearing clamps made of IM-44 (phenolformaldehyde plastic). The stress distribution over contact areas between shaft and clamps is discussed. Conclusions are drawn on the basis of an analysis of the results of an investigation.

Zavartseva, V. M. Photoelastic Determination of Stresses in a Disk With a Keyway Under Uniform Internal Pressure 39

Stresses were determined for disks with one keyway, with

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SOV/2885

two keyways, and without a keyway. Fringe photographs and lines of principal stresses are presented and analyzed.

Zaytsev, G. Z. Engineer Residual Stresses in Materials and Welded Joints of 1Kh18N12T Steel Tubes

56

The effect of heat-treatment methods on the amount of residual stresses in tube walls and welded joints is discussed. A technique of measuring residual stresses is described.

## II. SURFACE WORK HARDENING OF MACHINE ELEMENTS

Kulikov, O.O. Candidate of Technical Sciences. Some Concepts Necessary for Studying the Fatigue Strength of Surface Work-hardened Machine Elements

64

The author attempts to systematize basic concepts and establish terminology in the field of fatigue strength. The phenomena accompanying endurance tests and the behavior of machine parts under cyclic loading are described. Characteristic Card 4/10

Increasing the Strength (Cont.)

SOV/2885

features of these phenomena and factors causing them are discussed

Khayet, G. L. Candidate of Technical Sciences, D. A. Sten'ko, and B. A. Brusilovskiy, Engineers. Practice at the Novo-Kramatorskiy mashinostroitel'nyy zavod (Kramatorsk New Machine-building Plant) in External Burnishing of Large Machine Parts With Rollers

76

The technique of conducting experiments, the geometry of the tool, the principles of selecting the burnishing regime, and the devices used are described and discussed. A table with diagrams of burnished machine parts and data on effects of burnishing is presented.

Kulikov, O.O. Effect of Work Hardening by Burnishing With Rollers and Some Loading Conditions on the Endurance Limit of Sections of Shafts With Press-fitted Machine Parts

95

The difference in behavior under cyclic loads between plain shafts and shafts with press-fitted machine parts is pointed

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SOV/2885

out. The effect of loading on the bore and shaft and the of the duration of the test (20 and 100 million cycles) were investigated. The preparation and burnishing of samples and the technique of testing are described. Results of the investigation are discussed.

Kudryavtsev, I. V., and N. A. Balabanov *[Candidate of Technical Sciences]*. Work Hardening of Stepped Shafts by Fillet Peening 133

Results of fatigue tests on stepped steel shafts are analyzed. Comparisons are drawn between shafts work-hardened by fillet peening and shafts not subjected to any work-hardening process. Fillet peening was accomplished on a milling machine with a special attachment having a spring-actuated striking pin with a spherically rounded end.

Barats, A. I. *[Engineer]*. Increasing the Life of Metallurgical-machinery Parts by External Burnishing With Rollers 123

Constructions of the burnishing devices used are described, and some problems connected with the technique  
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Increasing the Strength (Cont.)

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of burnishing are discussed. Results of testing burnished surfaces in operation are presented.

Kudryavtsey, I. V., T. V. Naumova, and L. M. Rosenman  
Engineers. Effect of Work Hardening on the Strength of Carbon Steels

129

Changes in hardness, ductility, yield, ultimate stress, impact toughness, and fatigue limit of carbon steels due to work hardening are investigated. Results are presented in tables and diagrams.

Zaytsev, G. Z. Fatigue Strength of Teeth of Large-module Gears

142

Fatigue tests on large cast and forged gears are described. The effect of surface work hardening on spaces between teeth is investigated.

### III. PROPERTIES OF STEELS AT NORMAL AND HIGH TEMPERATURES

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Kudryavtsev I. V., and T. V. Naumova. Effect of Large Plastic Deformations on the Strength Properties of Austenitic Steels

159

The investigation described in this article was conducted in order to establish the effect of extensive strain hardening on the fatigue resistance of heat-resistant steels. In addition to fatigue tests, short-time tensile, compression, impact, and hardness tests were taken. The tests were taken at room temperature ( $20^{\circ}\text{C}$ ) and at elevated temperatures ( $580^{\circ}\text{C}$ ). The effect of heat treatment on strain-hardened steels and the simultaneous effect of strain hardening and artificial aging were investigated.

Aleksandrov, B. I. Candidate of Technical Sciences. Fatigue Resistance of EI723 Pearlitic Steel at High Temperatures 174

The method of investigation and preparation of samples are described. The influence of temperature and external burnishing with rollers, the sensitivity to stress concentration, and the changes in microstructure due to cyclic

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Increasing the Strength (Cont.)

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loading are examined.

Gulyayev, A. P. Doctor of Technical Sciences, Professor,  
and M. F. Vorokhanova, Engineer. Microscopic Investigation  
of Plastic Deformation

188

This article describes an experimental investigation of plastic deformation with the use of the optical microscope. A titanium model of the microsection was then studied in an electron microscope. Plastic flow, changes in grain shape, and generation of cracks are discussed.

#### IV. MODERN STRENGTH-TESTING EQUIPMENT

Yatskevich, S. I. Candidate of Technical Sciences, and  
N. Ye. Naumchenkov Engineer. Model U-200 Machine for  
Fatigue Testing Shafts With up to 200-Millimeter Diameters 201

This machine, designed and built by TsNIITMASH, requires only 16 kw. for fatigue testing 200-millimeter shafts. It employs the principle of resonance for loading. Other  
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Gulyayev, A. P. Doctor of Technical Sciences, Professor,  
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Card 9/10

Increasing the Strength (Cont.)

SOV/2885

design considerations and operating techniques are discussed.

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Card 10/10

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1-26-60

BAVITSEVA, V. M. and SEVILIN, N. A. (J. and Tech Sci)

"Application of the Optical Method for Analyzing the Distribution of Residual Stresses in the Process of Surface Strengthening of Machine Parts," pp 60-93, of the Book "Studies on the Strength of Steel," Mashgiz, 1951.

Translation W-23621, 21 Aug 1952.

ZAVARTSEVA, V. M.

ZAVARTSEVA, V. M. --"Investigation of Contact Stresses in Sinking Without Expansion." Sub 26 May 52, Central Sci Res Inst of Technology and Machine Building (TsNITMash) (Dissertation for the Degree of Candidate in the Technical Science)

SO: VECHERNAYA MOSKVA, JANUARY-DECEMBER 1952

ZAVARTSEVA, V.M., kandidat tekhnicheskikh nauk.

Use of polarization and optical methods for the study of contact stresses  
in upsetting without preliminary widening. [Trudy] TSMIITWASH no.63:130-  
188 '54. (Strains and stresses) (Photoelasticity)

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001964010004-6

040 1/1 PRO 120-1575

Authors: Nikitin, Ye. P., Cand. Tech. Sc., and Zavartseva, V. M., Cand. Tech. Sc.

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001964010004-6"

SAVERIN, M. M. ; ZAVARZEEVA, V. M.

Use of an optical method for analysing the distribution of the residual stresses in surface-worked parts. (Solution of the problem of experimental investigation of the residual stresses in the surface layer, i.e., the zone where stress concentrations occur, by simulating in an optically active material stress conditions which are analogous to those occurring in a treated part. Considerable concentrations of residual compression stresses were observed in the zone of the cracks, which relieve considerably stress concentrations there due to external load) - pp. '0 - 93!

A paper contained in the symposium "Research Work on the Strength of Steel", edited by I. V. Kudryatseva, Nauksgiz, 1951.

NAVERIN, M. M.; ZAVARZENKA, V. N.

Application of an optical method of stress determination for solution of problems of "elastic-plastic" contacts. (Investigation of the distribution of the specific pressure along the contact zone during rolling; the rolls were made of an optically active material, the rolled strip was of lead. Optical analysis of the experimental results proved the hypothesis of the existence of a zone of adherence (adhesive zone) on the contact surface.) - pp. 196 - 222

A paper contained in the symposium "Research Work on the Strength of Steel", edited by I. V. Kudryatseva, Mashiz, 1951.

ZAVARTSEVA, V.H., kand.tehn.nauk

Using the photoelastic method in studying stresses in the  
contact area of a bent beam and cover plates. [Trudy]  
TSNIITMASH 91:23-38 '59. (MIRA 12:8)  
(Photoelasticity) (Girders)

ZAVARTSEVA, V.M., kand.tekhn.nauk

Photoelastic determination of stresses in a disk with a key  
groove subjected to internal pressure. [Trudy] TSHIITMASH  
91:39-55 '59. (MIRA 12:8)  
(Photoelasticity) (Disks, Rotating)

SOV/124-57-4-4750

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 4, p 126 (USSR)

AUTHOR: Zavartseva, V. M.

TITLE: The Employment of an Optical Polarized-light Method in the Investigation of Contact Stresses Arising During Upsetting Operations Performed on Specimens Which Are Not Allowed to Expand Laterally  
(Primeneniye polyarizatsionno-opticheskogo metoda k issledovaniyu kontaktnykh napryazheniy pri osadke bez ushirenya)

PERIODICAL: V kn.: Konstruktionnaya prochnost' staley. Moscow, Mashgiz, 1954, book 63, pp 130-188

ABSTRACT: The experiment was conducted in the following manner: The elastic bottom plate of a press, on which the upsetting of lead specimens was performed, was made of the photoelastic material IM-44; by determining the stresses in the bottom plate throughout the plane of contact with the specimen being deformed, the author seeks to evaluate the contact stresses arising in the specimen. The investigation of contact stresses was performed with dry as well as lubricated contact between the surfaces of the lead specimen and the bakelite plate. The results of the investigation were employed in plotting

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SOV/124-57-4-4750

The Employment of an Optical Polarized-light Method (cont.)

diagrams of the distribution of the tangential and normal stresses in the plane of contact for four specimens with different dimensional relationships and various degrees of upsetting. The experimental data are compared with theoretical solutions. Regrettably, the author fails to indicate what criteria he employed in dealing with the fringe effects so characteristic of the IM-44 material.

S. P. Shikhobalov

Card 2/2

SOV/124-58-8-9154

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 8, p 120 (USSR)

AUTHORS: Unkssov, Ye. P., Zavartseva, V.-M.

TITLE: Using Photoelasticity to Study the Stresses That Arise During Plastic Forging Deformation (Primeneniye polyarizatsionno-opticheskogo metoda dlya izucheniya napryazheniy pri plasticheskoy osadke)

PERIODICAL: V sb.: Vopr. konstrukts. prochnosti stali. Moscow, Mashgiz, 1957, pp 228-254

ABSTRACT: To study the elastic stresses in forgings at a stress level just below that at which plastic deformation begins, the authors employ photoelastic models of forgings. The assumption is made that the start of the plastic-deformation process and the incipient compressive reduction with only a small degree of plastic deformation are characterized by the continuance of the stress distribution attained at the elastic limit. An investigation is made of the stress distribution during forging of circular shafts on flat forging dies and on shaped dies, and during forging of rectangular billets on flat dies.

V. P. Netrebko

Card 1/1

137-58-1-669

ZAVARTSEVA, V. M.

Translation from: Referativnyy zhurnal. Metallurgiya, 1958, Nr 1, p 103 (USSR)

AUTHORS: Unkov, Ye. P., Zavartseva, V. M.

TITLE: Use of Polaroid Optics to Study Stresses During Plastic Upsetting (Primenenie poliarizatsionno-opticheskogo metoda izuchenija napryazhenij pri plasticheskoy osadke)

PERIODICAL: V sb.: Vopr. konstrukts. prochnosti. Moscow, Mashgiz,  
1957, pp 228-254

ABSTRACT: An investigation has been performed with the aid of the optically active material IM-44 relative to the forging of shafts and upsetting. Diagrams of the principal stresses ( $S$ ) occurring during plastic deformation ( $D$ ) have been obtained. The existence of tensile  $S$  during the forging of shafts is demonstrated, and the effect of the degree of  $D$  and tool shapes upon the nature of the  $S$  is established. Practical recommendations are offered: round shafts should be forged in accordance with "square-rectangle-square" system, while when the "circle-circle" system is employed in the case of flat strikers, it is necessary that the  $D$  per individual reduction be  $\geq 7.5$  percent, while in the first forging of shaped strikers the limiting

Card 1/2

137-58-1-669

Use of Polaroid Optics to Study Stresses (cont.)

angle of seizure must be  $\geq 90^\circ$ , etc.

Ya.O.

1. Stress analysis--USSR    2. Polaroid optics--Applications

5)

Card 2/2

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001964010004-6

ZAVARITSKIY, V.A.

Metasomatic alteration of rocks enclosing the Kachar iron  
deposit. Zap. Vses. min. ob-va 92 no. 5:525-534 '63.  
(MIRA 17:1)

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001964010004-6"

DOKUCHAYEV, Vasiliy Vasil'yevich [deceased]; ZAVARITSKIY, V.N.; TYURIN, I.V.,aka-demik, otv.red.; SPRIGINA, L.I., red.izd-va; NOVICHKOVA, N.D.,tekhn.red.

[Works] Sochineniya. Moskva, Izd-vo Akad. nauk SSSR. Vol.8. [Papers and addresses. Correspondence] Raboty i vystupleniya. Perepiska, (MIRA 14:6)  
1961. 556 p.

(Soils)

(Agriculture)

ZAVARTSEV A.M.

KOGAN-VOL'MAN, Georgiy Izrailevich, kand.tekhn.nauk; CHERNYSHEV, N.A.,  
kand.tekhn.nauk, retsenzent; ZAVARTSEV, A.M., inzh., retsenzent;  
SAPOZHKOVA, N.M., inzh., red.; STUPIN, A.K., red.izdatel'stva;  
MOIEL', B.I., tekhn.red.

[Flexible wire shafts] Gibkie provolochnye valy. Moskva, Gos.  
nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1957. 246 p. (MIRA 11:1)  
(Shafts and shafting)

ZAVARTSEVA, V. M.

UNKSOV, Ya.P., doktor tekhnicheskikh nauk, professor; ZAVARTSEVA, V.M.,  
kandidat tekhnicheskikh nauk.

Using the polarized light method to study stresses in plastic  
swaging. [Trudy] TSNIITMASH no.85:228-254 '57. (MIRA 10t9)  
(Deformations (Mechanics)) (Photoelasticity)

ZAVARUKHIN, G.V.

Chemical industry and science in the 6th five-year plan. Zhur.  
ob.khim. 26 no.3:I-IV Mr '56. (MLBA 9:8)  
(Chemistry)

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001964010004-6

ZAVARUKHIN, S.

ZAVARUKHIN, S. (Chelyabinskaya oblast')

Not a single fire. Pozh.delo 3 no.10:3 0 '57. (MIRA 10:11)  
(Chelyabinsk--Fire prevention)

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001964010004-6"

ZAVARUKHINA, T.

Let's give methodological help to factories. Prof.-tekhn.  
(MIRA 14:4)  
obr. 18 no.4:29 Ap '61.

1. Zamestitel' predsedatelya uchebno-metodicheskogo soveta  
Sverdlovskogo zovnarkhoza.  
(Sverdlovsk Province—Vocational education)  
(Teaching)

TETERYATNIKOV, Mikhail Stepanovich; BAYKOVA, K.G., inzh., retsenzent;  
BELOGLAZOV, V.I., kapitan, retsenzent; ZAVARUYEV, V.V., inzh.,  
red.; LOBANOV, Ye.M., red. izd-va; YERMAKOVA, T.T., tekhn. red.

[Ship accounting] Sudovaia otchetnost'. Moskva, Izd-vo "Rechnoy  
transport," 1961. 131 p. (MIRA 14:7)  
(Inland water transportation--Accounting)

ZAVARYKIN, F. I.

[Railroad workers of the Ashkhabad main line during the Great Patriotic War, 1941-1945] Zheleznodorozhniki Ashkhabadskoi magistrali v gody Velikoi Otechestvennoi voiny, 1941-1945 gg. Chardzhou, Turkmeneskii gos. pedagog. in-t im. V. I. Lenina, 1961, 172 p. (MIRA 16:4)  
(Ashkhabad—World War, 1939-1945—Transportation)  
(Ashkhabad—Railroads—Employees)

ZAVARZA, N. T., redaktor; KHROMOHERKO, F. I., redaktor; KUZ'MIN, G. M.,  
tekhnicheskiy redaktor

[Generalizing the experience of leading workers in photogrammetry;  
collection of articles] Obobshchenie opyta perevodikov kameral'nogo  
proizvodstva; sbornik statei. Moskva, Izd-vo geodesicheskoi lit-ry,  
1954. 77 p. [Microfilm] (MLRA 8:2)  
(Photographic surveying)

ZAVARZA, N.T.

3(4)  
AUTHOR:

None Given.

SOV/6-58-10-17/17

TITLE:

Chronicle (Khronika)

PERIODICAL:

Geodeziya i kartografiya, 1958, Nr 10, pp 79 - 80 (USSR)

ABSTRACT:

A conference of the heads of aerial surveying authorities was held in Moscow at the Glavnoye upravleniye geodezii i kartografii MVD SSSR (Central Bureau of Surveying and Cartography at the Ministry of the Interior USSR) on September 10 - 12, 1958, under participation of the collaborators of the administration of the GUGK and the TsNIIGAiK. Two lectures were delivered: N.T. Zavarza, Departmental Head at the GUGK spoke about "Results in the Execution of the State Plan for Topographical-Surveying Work During the Eight Months and the Measures taken for Meeting the Target for 1958". P.I. Povalyayev, Departmental Head at the GUGK spoke about "Plans for Topographical-Surveying Work for 1959". The volume of work done has been increased by 8,9 % as compared to the same period in 1957. It was stated that reorganization has not yet been everywhere completed. The necessity of increasing the quality of work was emphasized. Measures were decided upon for the improvement of control and the auditing of

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Chronicle

SOV/6-50-10-17/17

work. It was stated that the chief engineers of several AGP (Zabaykal'skoye AGP - N.A. Koreshkov, Sredneaziatskoye AGP - V.A. Kolibayev, Kazakhskoye AGP - K.A. Zaytsevskiy) do not endeavour to ensure compliance with the order established for the development and the auditing of field projects. For this reason it was decided to set a deadline for elaborating and auditing field projects for 1959, not later than March 1 - 15.

Card 2/2  
USCOMM-DC-60,861

IVANOV, Vitaliy Fedorovich; ZAVARZA, N.T., red.; SHAMAROVA, T.A., red.izd-va;  
ROMANOVA, V.V., tekhn.red.

[Drawing up technical plans and estimates for topographical and  
geodetic surveying] Sostavlenie tekhnicheskikh proektov i smet  
na topografo-geodesicheskie raboty. Moskva, Izd-vo geodes. lit-ry,  
1959. 230 p.  
(Surveying)

ZAVARZA, N.T.

Let us greet the 22d Congress of the CPSU in a worthy manner.  
Geod.i kart. no.8:9-14 Ag '61. (MIRA 14:10)  
(Surveying) (Cartography)

TRENIN, Boris Konstantinovich; ZAVARZA, N.T., red.; KOMAR'KOVA, L.M.,  
red. izd-va; SUNGUROV, V.S., tekhn.red.

[Standard forms of field books and instrument records used in  
topographic and geodetic works] Tipovye formy polovykh zhurnalov,  
pasportov, instrumentov, ispol'zuemye na topografo-geodezicheskikh  
rabotakh. Moskva, Geodezizdat, 1962. 351 p. (MIRA 15:7)  
(Topographical surveying)

ZAVARZA, P., geroy Sotsialisticheskogo Truda.

Strength of friendship. Mast.ugl. 3 no.2:28-29 F '54. (MIRA 7:3)

1. Mashinist kombayna shakhty No.1 "TSentral'naya" kombinata  
Stalinugol'. (Coal miners) (Czechoslovakia--Relations (General)  
with Russia) (Russia--Relations (General) with Czechoslovakia)

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001964010004-6

SVET, D.Ya.; ZAVARZA, T.N.

Selection and efficient use of spectral sensitivity of photocells  
in bichromatic pyrometry. Izm.tekh. no.2:8-10 F '64.

(MIRA 17:4)

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CIA-RDP86-00513R001964010004-6"

ACCESSION NR: AP4016584

S/0115/64/000/002/0008/0010

AUTHOR: Svet, D. Ya.; Zavarza, T. N.

TITLE: Selection and reasonable use of spectral sensitivity of phototubes in bichromatic pyrometry

SOURCE: Izmeritel'naya tekhnika, no. 2, 1964, 8-10

TOPIC TAGS: pyrometry, bichromatic pyrometry, phototube, phototube spectral sensitivity, blue/red ratio, antimony/cesium phototube, TsEP-3 pyrometer

ABSTRACT: The characteristics of new "multi-alkaline" (Sb-K-Na-Cs) phototubes developed by T. N. Rabotnova, L. V. Kononchuk, and L. A. Shchekina for use in bichromatic pyrometry are reported. Manufactured in both semitransparent and mass variants, these phototubes have a higher red-wave sensitivity, a higher temperature stability (within +20 + 50C), and a wider spectral-sensitivity range (up to 900 mmicrons) than the conventional Sb-Cs tubes. The

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ACCESSION NR: AP4016584

latter characteristic permits obtaining a sufficient blue-red ratio without approaching the unstable range near the "red border." A pyrometer calibrating curve exhibited high stability over a test period of about 80 days in measuring a color temperature of 1,600C in the case where the long-wave range was excluded. The blue-red ratio varied by 1-2% in the +20+50C range. Orig. art. has: 3 figures.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 12Mar64

ENCL: 00

SUB CODE: IE, GE

NO REF SOV: 009

OTHER: 001

Card 2/2

ZAVARZHIN, M. K.

Yeletskiy, Ye. S. and Zavarzhin, M. K., "On the problem of ephemeral total poliomyelitis of adults," Trudy (Sarat. gos. med. in-t), 1948, Vol. VII, p. 199-208

SO: U-3264, 10 April 1953, (Letopis 'Zhurnal 'nukh Statey, No. 3, 1949)

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001964010004-6

ZAVARZIN, A., kand. arkhitektury.

New standard for natural building stones, Stroi. mat. 4 no.3:26-28  
Mr '58. (MIR 11:3)

(Building stones—Standards)

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CIA-RDP86-00513R001964010004-6"